

**CLAIMS:**

1. A method of creating a document suitable for hard copy reproduction, said method comprising the steps of:

(a) receiving information from at least one source, said information including a plurality of referential links establishing corresponding referential paths between components of said information;

(b) defining a physical structure of said document sufficient to reproduce said information;

(c) defining a plurality of document links corresponding to said referential links;

(d) assigning a user interpretable functional link to each said document link; and

(e) optimising a number of said user interpretable functional links by assigning plural ones of said document links to at least an individual one of said functional links.

2. A method according to claim 1, wherein said physical structure comprises at least one single page and said functional links comprise at least one indicia printable onto said single page, and step (e) comprises merging plural ones of said document links to form a single said indicia associated with a component on said page.

3. A method according to claim 1 or 2 wherein said physical structure comprises plural pages and said functional links comprise at least one cut-out tab formed in at least one of said pages, and step (e) comprises assigning plural ones of said document links to a single one of said cut-out tabs.

4. A method according to claim 3, wherein at least one said cut-out tab is formed as part of a nest of correspondingly located tabs associated with plural ones of said pages.

5. A method according to claim 4 further comprising the step of retaining structure definitions of said document in a template for formatting at least one subsequent document in a corresponding fashion.

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6. A method according to claim 4 or 5 further comprising defining a presentational style to said document and applying said presentational style to said functional links to distinguish said functional links from said components.

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7. A method according to claim 6 further comprising the step of retaining said presentational style of said document in a template for formatting at least one subsequent document with said presentational style.

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8. A method according to claim 1 further comprising defining content specific document links and incorporating corresponding functional links into said document.

9. A method according to claim 8 wherein said content specific document links are user defined.

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10. A method according to claim 1, further comprising the step of associating a predetermined stylistic layout with said optimised functional links so as to vary a hard-copy reproduction of said document.

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11. A method according to claim 10 wherein said predetermined stylistic layout implements the formation of cut-out tabs as at least some of said optimised functional links.

12. A method according to claim 1, wherein step (e) comprises grouping said document links according to predetermined criteria associated with said document links,

each said group having associated therewith at least one corresponding optimised functional link.

13. A method according claim 1 or 12 wherein step (e) comprises the sub-steps of:

- 5 (ea) importing said information into said structure to form said document;  
and  
(eb) applying said optimised links to said document.

14. A method according to claim 1 wherein a plurality of said functional links  
10 comprises corresponding cut-out tabs linking different pages of said document, and step (e) comprises the sub-steps of:

- (ec) identifying those of said document links that either (i) start or (ii) end on  
respective common pages of said document;  
(ed) for each said common page, grouping together corresponding document  
15 links identified at step (ec); and  
(ee) providing a cut-out tab functional link corresponding to each said group  
of document links.

15. A method according to claim 14, wherein step (ed) further comprises limiting  
20 each of said groups to plural document links to those that either (i) end on different ones of said pages or (ii) start on different ones of said pages, as the case may be, and step (ee) comprises providing a set of nested cut-out tab functional links, each member of said set corresponding to one said document link of the corresponding said group.

25 16. A method according to claim 15 wherein said groups are formed based upon a determinable relationship between corresponding said components of information.

17. An authoring system for the creation of a linear document having non-linear referential links, said system including:

means for specifying a linear document structure and the hyperlinks of a hypermedia document;

means for associating said hyperlinks with physical links able to be formed in pages of said linear document;

means for modelling each said physical link using a one-dimensional vector; and

means for optimising an assignment of said physical links to one or more of said hyperlinks.

18. An authoring system for the creation of a linear document having non-linear referential links, said system comprising:

means for assessing hyperlinks within a source hypermedia document to which a linear document structure is to be applied;

means for associating said hyperlinks with physical links able to be formed in pages of said linear document;

means for modelling each said physical link using a one-dimensional vector; and

means for optimising an assignment of said physical links to one or more of said hyperlinks.

19. A system for the creation of a linear document having non-linear referential links, said system comprising:

means for assessing hyperlinks within a source hypermedia document to which a linear document structure is to be applied;

means for associating said hyperlinks with physical links able to be formed in pages of said linear document;

means for modelling each said physical link using a one-dimensional vector;

means for optimising an assignment of said physical links to one or more of said hyperlinks;

means for applying said linear document structure and said optimised physical links to said hypermedia document to produce said linear document; and

means for reproducing said linear document.

20. A computer program product incorporating a computer readable medium incorporating a series of instructions for creating a document suitable for hard copy reproduction, said instructions implementing the steps of:

(a) receiving information from at least one source, said information including a plurality of referential links establishing corresponding referential paths between components of said information;

(b) defining a physical structure of said document sufficient to reproduce said information;

(c) defining a plurality of document links corresponding to said referential links;

(d) assigning a user interpretable functional link to each said document link; and

(e) optimising a number of said user interpretable functional links by assigning plural ones of said document links to at least an individual one of said functional links.

21. A computer program product according to claim 20, wherein said physical structure comprises at least one single page and said functional links comprise at least one indicia printable onto said single page, and step (e) comprises merging plural ones of said document links to form a single said indicia associated with a component on said page.

22. A computer program product according to claim 20, wherein said physical structure comprises plural pages and said functional links comprise at least one cut-out tab formed in at least one of said pages, and step (e) comprises assigning plural ones of said document links to a single one of said cut-out tabs.

23. A computer program product according to claim 22, wherein at least one said cut-out tab is formed as part of a nest of correspondingly located tabs associated with plural ones of said pages.

5 24. A computer program product according to claim 23 further comprising the step of retaining structure definitions of said document in a template for formatting at least one subsequent document in a corresponding fashion.

10 25. A computer program product according to claim 23 further comprising defining a presentational style to said document and applying said presentational style to said functional links to distinguish said functional links from said components.

15 26. A computer program product according to claim 25 further comprising the step of retaining said presentational style of said document in a template for formatting at least one subsequent document with said presentational style.

20 27. A computer program product according to claim 20 further comprising defining content specific document links and incorporating corresponding functional links into said document.

28. A computer program product according to claim 27 wherein said content specific document links are user defined.

25 29. A computer program product according to claim 20, further comprising the step of associating a predetermined stylistic layout with said optimised functional links so as to vary a hard-copy reproduction of said document.

30. A computer program product according to claim 29 wherein said predetermined stylistic layout implements the formation of cut-out tabs as at least some of said optimised functional links.

31. A computer program product according to claim 20, wherein step (e) comprises grouping said document links according to predetermined criteria associated with said document links, each said group having associated therewith at least one corresponding optimised functional link.

32. A computer program product according to claim 20 wherein step (e) comprises the sub-steps of:

(ea) importing said information into said structure to form said document;  
and

(eb) applying said optimised links to said document.

33. A computer program product according to claim 20 wherein a plurality of said functional links comprises corresponding cut-out tabs linking different pages of said document, and step (e) comprises the sub-steps of:

(ec) identifying those of said document links that either (i) start or (ii) end on respective common pages of said document;

(ed) for each said common page, grouping together corresponding document links identified at step (ec); and

(ee) providing a cut-out tab functional link corresponding to each said group of document links.

34. A computer program product according to claim 33, wherein step (ed) further comprises limiting each of said groups to plural document links to those that either (i) end on different ones of said pages or (ii) start on different ones of said pages, as the case may be, and step (ee) comprises providing a set of nested cut-out tab functional links, each

member of said set corresponding to one said document link of the corresponding said group.

35. A computer program product according to claim 34 wherein said groups are  
5 formed based upon a determinable relationship between corresponding said components of information.

36. A system for creating a document suitable for hard copy reproduction, said system comprising:

10 first means for receiving information from at least one source, said information including a plurality of referential links establishing corresponding referential paths between components of said information;

second means for defining a physical structure of said document sufficient to reproduce said information;

15 third means for defining a plurality of document links corresponding to said referential links;

fourth means for assigning a user interpretable functional link to each said document link; and

20 fifth means for optimising a number of said user interpretable functional links by assigning plural ones of said document links to at least an individual one of said functional links.

37. A system according to claim 36, wherein said physical structure comprises at least one single page and said functional links comprise at least one indicia printable onto  
25 said single page, and said fifth means comprises means for merging plural ones of said document links to form a single said indicia associated with a component on said page.

38. A system according to claim 36 wherein said physical structure comprises plural pages and said functional links comprise at least one cut-out tab formed in at least one of



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said pages, and said fifth means comprises means for assigning plural ones of said document links to a single one of said cut-out tabs.

39. A system according to claim 38, wherein at least one said cut-out tab is formed  
5 as part of a nest of correspondingly located tabs associated with plural ones of said pages.

40. A system according to claim 39 further comprising means for retaining structure definitions of said document in a template for formatting at least one subsequent document in a corresponding fashion.

10 41. A system according to claim 39 further comprising means for defining a presentational style to said document and for applying said presentational style to said functional links to distinguish said functional links from said components.

15 42. A system according to claim 43 further comprising means for retaining said presentational style of said document in a template for formatting at least one subsequent document with said presentational style.

20 43. A system according to claim 36 further comprising means for defining content specific document links and incorporating corresponding functional links into said document.

44. A system according to claim 43 wherein said content specific document links are user defined.

25 45. A system according to claim 36, further comprising means for associating a predetermined stylistic layout with said optimised functional links so as to vary a hard-copy reproduction of said document.

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46. A system according to claim 45 wherein said predetermined stylistic layout implements the formation of cut-out tabs as at least some of said optimised functional links.

5 47. A system according to claim 36, wherein said fifth means comprises grouping said document links according to predetermined criteria associated with said document links, each said group having associated therewith at least one corresponding optimised functional link.

10 48. A system method according claim 36 wherein said fifth means comprises:  
means for importing said information into said structure to form said document;  
and  
means for applying said optimised links to said document.

15 49. A system according to claim 36 wherein a plurality of said functional links comprises corresponding cut-out tabs linking different pages of said document, and fifth means comprises:

means for identifying those of said document links that either (i) start or (ii) end on respective common pages of said document;

20 means for grouping together, for each said common page, corresponding document links identified; and

means for providing a cut-out tab functional link corresponding to each said group of document links.

25 50. A system according to claim 49, wherein further comprising means for limiting each of said groups to plural document links to those that either (i) end on different ones of said pages or (ii) start on different ones of said pages, as the case may be, and means for providing a set of nested cut-out tab functional links, each member of said set corresponding to one said document link of the corresponding said group.

51. A system according to claim 50 wherein said groups are formed based upon a determinable relationship between corresponding said components of information.

5 52. A document formed using the method of claim 1.

53. A document formed using the system of claim 19.